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Assessment of diabetes among tuberculosis patients presenting at a tertiary care facility in Pakistan

Muhammad Irfan^a, Naseem Salahuddin^b, Qamar Masood^a, Owais Ahmed^a,
Umme Salama Moosajee^b, Zahra Hasan^{a,*}

^a The Aga Khan University, Karachi, Pakistan

^b Indus Hospital, Karachi, Pakistan

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ABSTRACT

Objective/background: Pakistan ranks sixth among high-tuberculosis (TB)-burden countries worldwide and fifth worldwide for diabetes incidence. Although both these factors are independently known, the rate of diabetes among TB patients is not well known. We aimed to determine the prevalence of diabetes among patients with TB presenting at tertiary care health centers in Karachi, Pakistan.

Methods: A total of 216 patients with TB were recruited and their blood samples were taken for testing of glycosylated hemoglobin (HbA1c) and random blood sugar. Diabetes was defined as HbA1c > 6.5% and random blood sugar > 180 mg/dL, pre-diabetes as HbA1c 5.7–6.4%, and normoglycemia as HbA1c < 5.7%.

Results: Data for 211 patients were available and showed that 24 (11.4%) patients had diabetes. Of these, 17 were newly diagnosed, while seven were known diabetics. Prediabetes was identified in 45 (21.3%) cases. Of the TB patients, 165 were newly diagnosed, while 46 were retreatment cases. The majority of patients (60%) were underweight with a body mass index of <18.5.

Conclusion: This study identified 11.4% diabetics among TB patients presenting to a tertiary care facility. Despite the high diabetes incidence in Pakistan, 71% of the diabetics in the group studied did not know their status. Given the negative impact of diabetes on treatment outcomes of TB, it is important that screening for diabetes be included as initial workup for TB patients. Identification and management of diabetes would result in improved outcomes for TB treatment.

Conflicts of interest

All authors declare no conflicts of interest.

* Corresponding author.

E-mail address: zahra.hasan@aku.edu (Z. Hasan).

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